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Dated: December 6, 2005

Signature:

Jane M. Love
(Jane M. Love)

Docket No.: 0109144.00143US1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Illimar ALTOSAAR et al.

Application No.: 10/723083

Confirmation No.: 5920

Filed: November 26, 2003

Art Unit: 1638

For: PRODUCTION OF GM-CSF IN PLANTS

Examiner: Elizabeth F. McElwain

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Information Disclosure Statement is being filed after the mailing date of the first Office Action on the merits and before the mailing date of a final Office Action or a Notice of Allowance.

Respectfully submitted herewith is a Form PTO/SB-08 listing References A1 – A2 and C1 – C33. The undersigned requests that the Examiner consider these references and make them of record by initialing the enclosed Form PTO SB-08, and forwarding a copy with the next communication.

Please charge the \$180.00 fee to our Deposit Account No. 08-0219.

Dated: December 6, 2005

Respectfully submitted,

By *Jane M. Love*
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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)			Complete if Known		
			Application Number	10/723083-Conf. #5920	
			Filing Date	November 26, 2003	
			First Named Inventor	Illimar ALTOSAAR	
			Art Unit	1638	
			Examiner Name	Elizabeth F. McElwain	
Sheet	1	of	3	Attorney Docket Number	0109144.00143US1

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	US-5,677,474	10-14-1997	Rogers, J. C.	ALL
	A2	US-5,889,189	03-30-1999	Rodriguez, R. L.	ALL

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
	C1	Aoyama and Chua, "A glucocorticoid-mediated transcriptional induction system in transgenic plants," The Plant Journal Vol. 11, No. 3, pp. 605-612 (1997)		
	C2	Brandstatter, I. and Kieber, J.J., "Two genes with similarity to bacterial response regulators are rapidly and specifically induced by cytokinin in Arabidopsis," The Plant Cell Vol. 10, pp. 1009-1019 (1998)		
	C3	Burgess, A.W., et al. "Purification and properties of bacterially synthesized human granulocyte-macrophage colony stimulating factor," Blood, Vol. 69, pp. 43-51 (1987).		
	C4	Caddick et al, "An ethanol inducible gene switch for plants used to manipulate carbon metabolism," Nature Biotech. Vol. 16, pp. 177-180 (1998)		
	C5	Cantrell, M.A., et al. "Cloning, sequence, and expression of a human granulocyte/macrophage colony-stimulating factor," Proc Natl Acad Sci USA Vol. 82, pp. 6250-6254 (1985).		
	C6	Cheng, X et al., "Rice transformation by Agrobacterium infection," In: Recombinant Proteins from Plants: Production and Isolation of Clinically Useful Compounds. (eds. C. Cunningham and A.J.R. Porter) Humana Press, pp. 1-9 (1998)		
	C7	Cheng et al., "Agrobacterium-transformed rice plants expressing synthetic CryIA(b) and CryIA(c) genes are highly toxic to striped stem borer and yellow stem borer," Proc Natl Acad Sci USA Vol. 95, pp. 2767-2772 (1998)		
	C8	Denecke et al, "Protein secretion in plant cells can occur via a default pathway," The Plant Cell, Vol. 2, pp. 51-59 (1990)		
	C9	Ernst, J.F., et al. "O-glycosylation and novel processing events during secretion of alpha-factor/GM-CSF fusions by Saccharomyces cerevisiae," Bio/Technology, Vol. 5, pp. 831-834 (1987).		
	C10	Gatz, C., "Chemical Control of Gene Expression," Ann. Rev. Plant Physiol. Plant Mol. Biol. Vol. 48, pp. 89-108 (1997)		
Examiner Signature			Date Considered	

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				Examiner Name	Elizabeth F. McElwain
Sheet	2	of	3	Attorney Docket Number	0109144.00143US1

C11	Jaeger, G.D., et al. "Boosting heterologous protein production in transgenic dicotyledonous seeds using Phaseolus vulgaris regulatory sequences," Nature biotechnology, Vol. 20, pp. 1265-1268 (2002).
C12	James, E.A., et al., "Production and characterization of biologically active human GM-CSF secreted by genetically modified plant cells," Protein Express Purif, Vol. 19, pp. 131-138 (2000).
C13	Kakimoto, T., "CKI1, a histidine kinase homolog implicated in cytokinin signal transduction," Science, Vol. 274, pp. 982-985 (1996)
C14	Kaushansky, K., et al. "Role of carbohydrate in the function of human granulocyte-macrophage colony-stimulating factor," Biochemistry Vol. 26, pp. 4861-4867 (1987).
C15	Kitamura, T., et al., "Establishment and characterization of a unique human cell line that proliferates dependently on GM-CSF, IL-3, or erythropoietin," J Cellular Physiol, Vol. 140, pp. 323-334 (1989)
C16	Lee, F., et al. "Isolation of cDNA for a human granulocyte-macrophage colony-stimulating factor by functional expression in mammalian cells," Proc Natl Acad Sci USA Vol. 82, pp. 4360-4364 (1985).
C17	Metcalf, D, "Control of granulocytes and macrophages: Molecular, cellular, and clinical aspects," Science Vol. 254, pp. 529-533 (1991).
C18	Moonen, P., et al. "Increased biological activity of deglycosylated recombinant human granulocyte/macrophage colony-stimulating factor produced by yeast or animal cells," Proc Natl Acad Sci USA Vol. 84, pp. 4428-4431 (1987).
C19	Murray et al., "Codon usage in plant genes," Nuc Acids Res. Vol. 17, pp. 477-498 (1989)
C20	Okamoto, M., et al. "Amplification and high-level expression for human granulocyte-macrophage colony-stimulating factor in human lymphoblastoid Namalwa cells," Bio/Technology, Vol. 8, pp. 550-553 (1990).
C21	Quesniaux and Jones. "Granulocyte-macrophage colony-stimulating factor," In: The Cytokine Handbook, (ed. Angus T.W.) Academic Press pp. 637-670 (1998).
C22	Saalbach, I., et al. "High-level expression of a single-chain Fv fragment (scFv) antibody in transgenic pea seeds." J. Plant Physiol. Vol. 158, pp. 529-533 (2001).
C23	Salter et al, "Characterisation of the ethanol-inducible alc gene expression system for transgenic plants," The Plant Journal Vol. 16, No. 1, pp. 127-132 (1998)
C24	Sardana et al., "Construction and rapid testing of synthetic and modified toxin gene sequences CryIA (b&c) by expression in maize endosperm culture," Plant Cell Reports Vol. 15, pp. 677-681 (1996)
C25	Sardana R, et al. "Biological activity of human granulocyte macrophage colony stimulating factor is maintained in a fusion with seed glutelin peptide," Transgenic Research Vol. 11, No. 5, pp. 521-531 (2002).
C26	Stoger, E., et al. "Cereal crops as viable production and storage systems for pharmaceutical ScFv antibodies," Plant Mol Biol., Vol. 42, pp. 583-590 (2000).
C27	Tobias et al., "The N-end rule in bacteria," Science, Vol. 254, pp. 1374-1377 (1991)
C28	Ulmasov, T., et al., "Aux/IAA proteins repress expression of reporter genes containing natural and highly active synthetic auxin response elements," The Plant Cell, Vol. 9, pp. 1963-1971 (1997)
C29	Varshavsky, "The N-end rule: functions, mysteries, uses," Proc. Natl. Acad. Sci USA, Vol. 93, pp. 12142-12149 (1996)
C30	Vitale, A., et al., "The role of endoplasmic reticulum in protein synthesis, modification and intracellular transport," Journal of Experimental Botany, Vol. 44, No. 266, pp. 1417-1444 (1993).
C31	Wong, G.G., et al. "Human GM-CSF: Molecular cloning of the complementary DNA and purification of the natural and recombinant proteins," Science, Vol. 228, pp. 810-815 (1985).

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	C32	Zheng, Z., et al. "5'distal and proximal cis-acting regulator elements are required for developmental control of a rice seed storage protein glutelin gene," The Plant Journal, Vol. 4, No. 2, pp. 357-366 (1993).	
	C33	Zheng, Z.W., et al. "The bean seed storage protein beta-phaseolin is synthesized, processed, and accumulated in the vacuolar type-II protein bodies of transgenic rice endosperm," Plant Physiol Vol. 109, pp. 777-786 (1995).	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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